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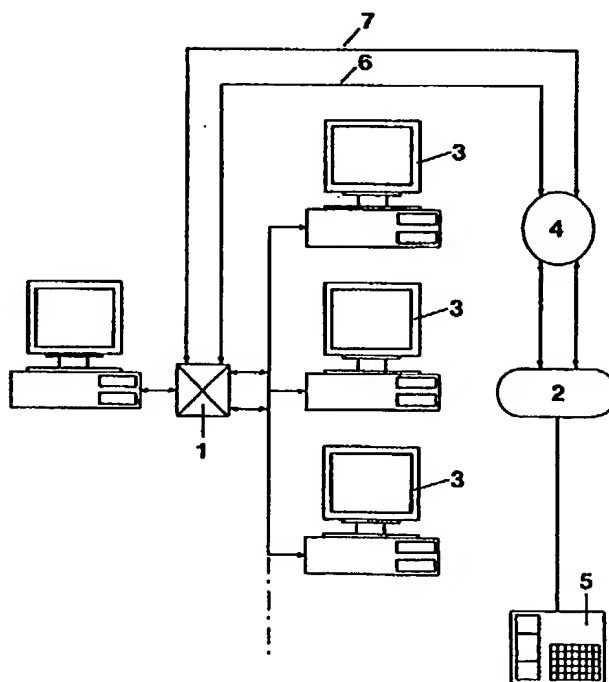
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/IT95/00160 (22) International Filing Date: 4 October 1995 (04.10.95) (30) Priority Data: RM95A000516 27 July 1995 (27.07.95) IT (71)(72) Applicants and Inventors: DAL PANE, Stefano [IT/IT]; Via S. Vitale, 62, I-40125 Bologna (IT). DI NICOLA, Giovanni [IT/IT]; Via Ivanoe Bonomi, 50, I-00139 Roma (IT). (74) Agent: MASCIOLI, Alessandro; A.N.D.I., Via Urbana, 20, I-00184 Roma (IT).		(81) Designated States: JP, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report.

(54) Title: A TELEMATIC AND SATELLITIC MULTIMEDIAL SYSTEM FOR FINANCIAL, ECONOMIC AND FISCAL TRANSACTIONS AND CONFIRMATIONS, BETWEEN USERS AND BANK AND INSTITUTIONAL SERVICES

(57) Abstract

A telematic and satellitic multimedial system for financial, economic and fiscal transactions and confirmations, between users and Bank and Institutional Services, for connecting in a network a user (5) and his own Bank for formalizing and confirming financial operations, appropriately limited, destined to Institutional Organizations depositaries of the legal order that transforms said operations into formal acts of economic content. In an operative variant, the system allows a multimedial telematic approach to operations of periodical forecasting games that tends to defining a parcours between the Institutional Organization, which assures the laws applied to the same, and the user, meant as someone who participates to said bet, so as to be disengaged from any time and space limit.



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"A TELEMATIC AND SATELLITIC MULTIMEDIAL SYSTEM FOR FINANCIAL, ECONOMIC AND FISCAL TRANSACTIONS AND CONFIRMATIONS, BETWEEN USERS AND BANK AND INSTITUTIONAL SERVICES"

The present invention concerns an original system for connecting in a network a user and his own Bank for formalizing and confirming financial operations, appropriately limited, destined to institutional organizations depositaries of the legal order that transforms said operations into formal acts of economic content.

According to the present invention, the functional interface between the user and his own Bank is performed by a multimedial Service Centre, that controls the accesses to the media that are enabled to provide the instructions and the procedures of the requested operation.

The user who has a fix, digital telephone, and if possible also a fax, may use the following media enabled by the Service Centre:

- Tv, with a televideo enabled to the interactivity function;
- audiotel service with a national or international access code;

- Internet address with enabled mailbox for the financial transaction.

The user provided with a movable telephone may not use the Tv screen with interactive televideo.

The Service Centre develops the multiple and network control unit by means of interactive software that enable a plurality of Data Codec, and possibly Internet.

The Data Codec allows the dialogue between the user terminal, the terminals of the associate Institute and the RAM unit for codification and decoding.

The codification and decoding RAM unit consists of an independent box that is locally connected to the computer of the Institutional Centers and of the Banks.

The independently fed box can be connected in network and via satellite. The "via satellite" option may be used when the quantity of the data from the centre to the periphery is considerable and the use of a system point multipoint in data broadcasting via satellite becomes convenient. The

system is provided with a codification and a decoding for protecting the reservedness of the transmitted data. If an audio undercarrier of an analogic satellite transmission is used, it is possible to perform the data transmission from the Centre Institutional Organization to the periphery, consisting of the apparatuses of the Banks, at a speed of 64 Kbit/sec. As an alternative, the network between the service centre, the Organizations and the Institutes is dedicated of the kind ISND or Itapac; in such case, it is the concern of the Service Centre to update the peripheries with modem on dedicated lines.

In an operative variant, the system allows a multimedial telematic approach to operations of periodical forecasting games that tends to defining a parcours between the Institutional Organization, which assures the laws applied to the same, and the user, meant as someone who participates to said bet, so as to be disengaged from any time and space limit.

In this variant, the fundamental elements that allow to exalt the application without time and space limits, are:

- the actual and future telephone network, with commutation for the generic user and with dedicated flow between the operators of the project;
- the terminal for the betting user provided at least with the minimum function of digital telephone keyboard and possibly with the fax function and further more, that can be related to a standard compatible PC-IBM;
- a terminal for the leading Institutional Organizations, provided with appropriate safety codes for the confirmation operations of the games;
- a plurality of terminals for the service societies, for the interfacing with the manager of the connections with the network and the organization leading the control of the global financial operation of the betting, as could be the Bank each time acknowledged and enabled to operate.

The present invention will be described more in detail hereibelow relating to the enclosed drawings in which some embodiments are shown.

Figure 1 shows the functional scheme of the service managers of the telematic and satellitic

multimedial system for financial, economic and fiscal transactions and confirmations, between users and Bank and Institutional Services.

Figures 2 and 3 show the schemes of the connection between a user with a digital, respectively fix and movable telephone.

Figures 4 and 5 respectively show the functional scheme of the possible connections for a user who has a respectively fix or movable telephone terminal with digital keyboard (if provided with fax, it may be useful for the checking of the betting), and figure 6 shows the sequence of the involved entities.

The figures show a multifunctional telematic and satellitic system according to the present invention, comprising:

- a RAM unit 1 for codification and decoding, consisting of an independent hardware that gets connected on a serial door to the computer of the Service Centre 2 and of the associated Banks 3, and comprises a box, independently fed, that may be connected in network and via satellite, whereby said latter option may be used when the data quantity from the centre to the periphery

is of considerable entity, and it becomes convenient when the peripheries are more than fifty on a wide territory; unit 1 is provided with a codification and decoding system for the reservedness and protection of the transmitted data;

- a unit 4 for multiple control and network that manages the applicative software for the user service terminals 5, for the terminals of the associated banks 3 and for the RAM unit 1 for codification and decoding;
- applicative software 6 and 7.

In a possible variant according to the present invention, the system may be combined to the televideo service, with the signal distributed via satellite, by means of the development of a RAM unit 1 adapted to the digital technology, so as to obtain transfer speed of the data in the range of megabit/sec.

The present invention further provides the development at speed of a small server for the user, so as to perform a plurality of financial transactions or bettings automatically and programmed in time, according to appropriate checking operations.

With the development of the cable networks it is possible to develop for the user an appropriate applicative, interactive software for providing the transaction also with specific audio-video supports and with guides to said operations; therefore, it will be possible, from a user terminal like a computer, to open information windows guided by appropriate menus.

In the variants shown in figures 2 and 3, the further components are shown:

- a fix digital telephone 10 plus a possible fax or movable telephone 11;
- a data codec 8 for an interactive Tv televideo;
- a data codec 9 for an autiotel T central;
- a connection with Internet IN.

For what concerns the possible, functional variants concerning the games, in the case of bets of "Totocalcio" and "Totogoal" managed by the Institutional Organization C.O.N.I. (Italian National Olympic Committee), the Bank authorized by C.O.N.I. manages the finalcial flow of the betw with an appropriate dedicate connection. According to the present invention, the Bank is connected by means of a computer with the service society, real interface with the user that emits the bet; the

relationship between the different entities are adjusted in such a way that the user has the maximum warranty on the secrecy and the integrity of the operation, also in case of win.

In a further variant the use of the Internet network is provided, for managing a data bank in the form of an electronic newspaper for facilitating the information for those users who bet through the multimedial telematic procedure; beyond the usual informations concerning the game, statistic cards may be elaborated supporting the users and the main actors, like the organizations ad the Banks. Through Internet it is possible to have an interactive dialogue with the users, extremely useful for the organizations and for the Banks for planning new bets.

For this purpose, the Banks may produce a bouquet of bets for providing the clients with a wide range of possibilities, freely moving on the market.

The connection via Internet and the approach to the network for performing a bet gives the operation an international trend.

For what concerns an application of a possible functioning of the system in the fiscal services, the user 5 may represent a plurality of fiscal subjects, may act on order of the same for transferring to the Institutional Organization (Treasury) financial transmissions appropriately confirmed by the relative Banks 3.

In particular, relating to the schemes of figures 4 and 5, the user 5 dials a telephone code in the autiotel service; such service allows, if the tv screen is to be used, to follow the informations on the bets from said screen.

Before sending the bet, the user 5 dials the code that the Service Centre has allotted him; the Service Centre 2 sends it automatically to the Bank where the user has a current account; the Bank elaborates the code sent by the Service Centre and sends the confirmation to user, who dials his own code in direct connection; said code is known only by the user. After the acceptance, the checking whereof may occur also by fax, the bet is closed.

The bet can also take place by using the keyboard of the telephone 5-11; the audiotel service and the televideo supply the informations for

performing the functions of the bet; at each step the user knows which are the keys corresponding to the function to be performed.

E.g.: for the bet with "Totocalcio" the combination 1-2-X may be dialed with 1-2-0.

E.g.: for the bet with "Totogoal", the numbers 04 07 12 21 25 26 30 are sent in succession.

E.g.: for the Lotto, the bets relative to the numbers 01 06 40 ... are sent with two digits.

To this service, also the Internet window IN is associated. This service is particularly turned to those users who live outside the national territory, and it may also be developed in multi-languages for supporting the access of different communities.

The service via Internet must be planned for making possible bets from all around the world.

In the scheme of figure 6 the sequence of the involved organizations is shown in general:

- a terminal TEI = Institutional Organizations (C.O.N.I., ministries, etc.);

- a terminal TB = Bank;
- a Service Centre 2 that coordinates all services on list;
- a user 5 who, by means of the digital fix or movable telephone, with the guide of audiotel and, under the specification of televideo or of the Internet network, performs the bet opening and closing the same by means of the codes allotted by the Service Centre and by the Bank.

The Service Centre 2 assures, at speed, a direct connection via Itapac or ISND between:

Audiotel Service = Service Centre,
Service Centre = Bank,
Bank = Institutional Organization.

The direct connections, combined with a multiple code system, are created for protecting the system from possible intrusions.

In a further variant the box of RAM 1 may be replaced, according to the present invention, by a RAM card that may be possible directly inserted in the computers TEI and TB. Such card has the same functions of the RAM box, with the further advantage of the integration in the computers TEI

and TB according to possible industrial processes
convenient for the Service.

CLAIMS

1. A telematic and satellitic multimedial system for financial, economic and fiscal transactions and confirmations, between users and Bank and Institutional Services, for connecting in a network a user and his own Bank for formalizing and confirming financial operations, appropriately limited, destined to Institutional Organizations depositaries of the legal order that transforms said operations into formal acts of economic content, characterized in:

- a RAM unit (1) for codification and decoding, consisting of an independent hardware that gets connected on a serial door to the computer of the Service Centre (2) and of the associated Banks (3), and comprises a box, independently fed, that may be connected in network and via satellite, whereby said latter option may be used when the data quantity from the centre to the periphery is of considerable entity, and it becomes convenient when the peripheries are more than fifty on a wide territory; unit (1) is provided with a codification and decoding system for the reservedness and protection of the transmitted data;

- a unit (4) for multiple control and network that manages the applicative software for the user service terminals (5), for the terminals of the associated banks (3) and for the RAM unit (1) for codification and decoding;
 - applicative software (6 and 7).
2. A system according to claim 1, characterized in the combination to the televideo service, with the signal distributed via satellite, by means of the development of a RAM unit (1) adapted to the digital technology, so as to obtain transfer speed of the data in the range of megabit/sec.
3. A system according to claim 1, characterized in the presence of the components:
- a fix digital telephone (10) plus a possible fax or movable telephone (11);
 - a data codec (8) for an interactive Tv televideo;
 - a data codec (9) for an autiotel T central;
 - a connection with Internet (IN).
4. A system according to claim 1, characterized in that the user (5) dials the code that the Service Centre has allotted him; the Service Centre (2) sends it automatically to the Bank where the user

has a current account; the Bank elaborates the code sent by the Service Centre and sends the confirmation to user, who dials his own code in direct connection; said code is known only by the user; after the acceptance, the checking whereof may occur also by fax, the bet is closed.

5. A system according to claim 1, characterized in that the RAM (1) box can be replaced by a RAM card directly inserted in the computers (TEI) and (TB).

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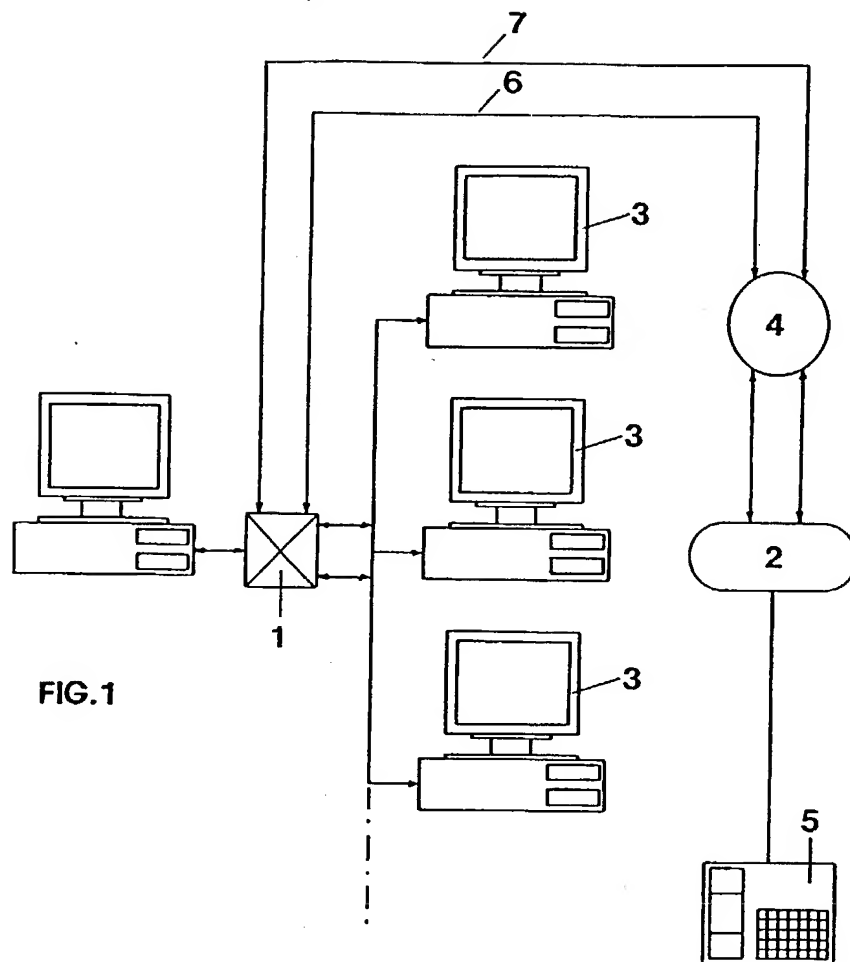


FIG. 1

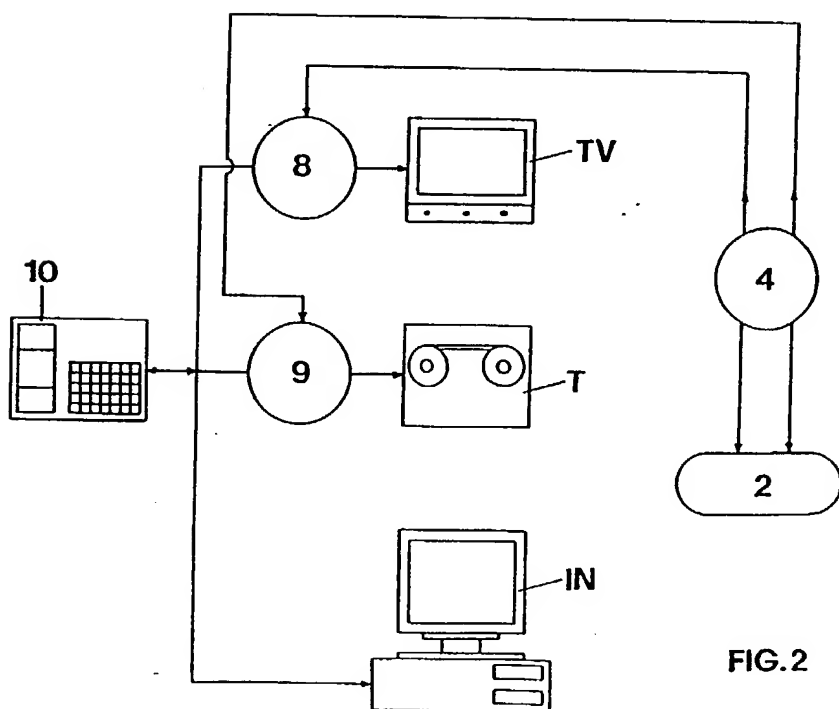


FIG. 2

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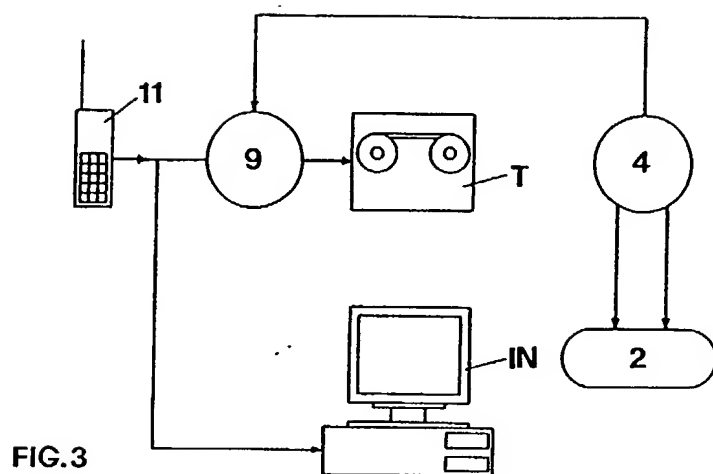


FIG. 4

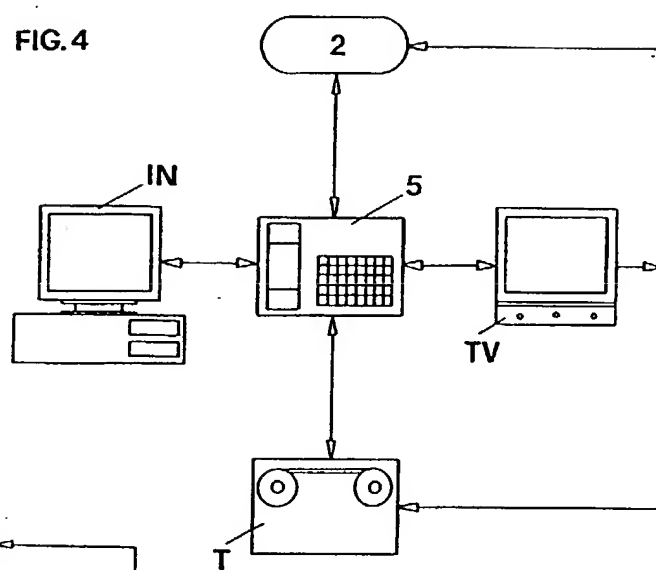


FIG. 5

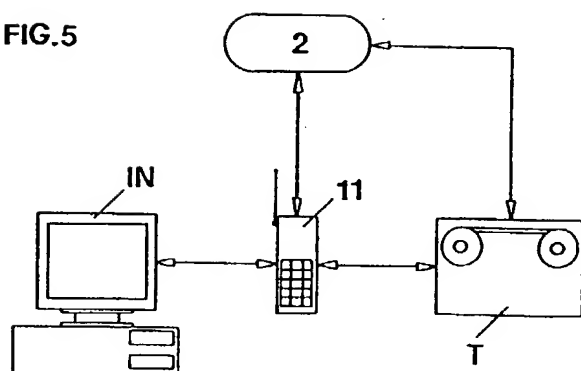
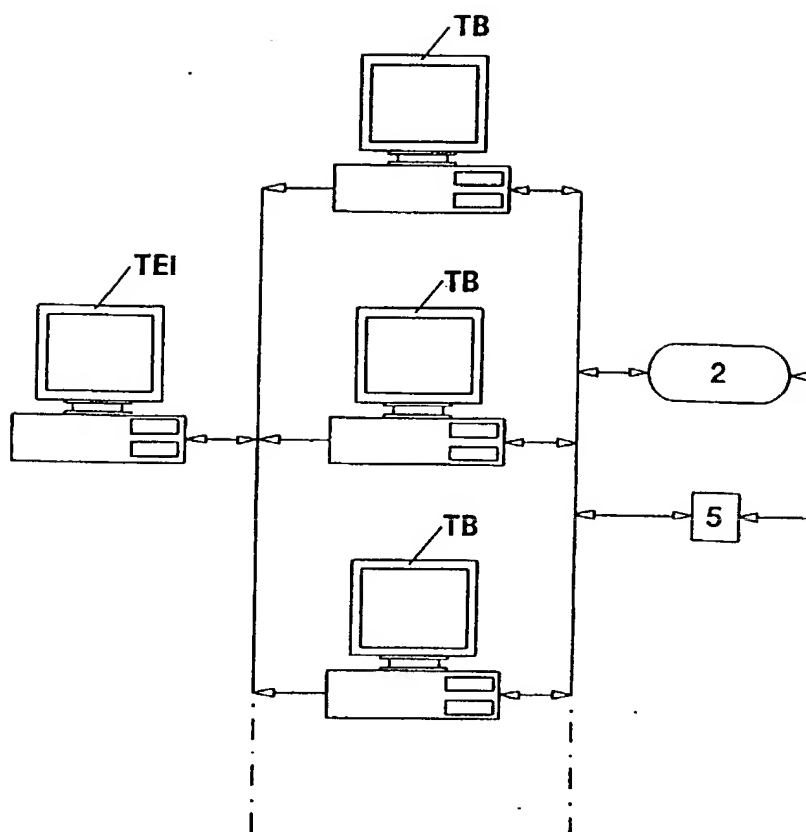


FIG.6



INTERNATIONAL SEARCH REPORT

In tional Application No
PCT/IT 95/00160

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 G07F7/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 G07F G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PATENT ABSTRACTS OF JAPAN vol. 014 no. 031 (P-993) ,22 January 1990 & JP,A,01 269158 (FUJITSU LTD) 26 October 1989, see abstract	1-5
A	---	2-5
Y	WO,A,90 13086 (SCIENTIFIC ATLANTA) 1 November 1990 see claim 1; figures 1,2	1-5
A	---	
A	PATENT ABSTRACTS OF JAPAN vol. 014 no. 124 (P-1018) ,8 March 1990 & JP,A,01 316869 (FUJITSU LTD) 21 December 1989, see abstract	1-5
A	---	
A	EP,A,0 649 121 (IBM) 19 April 1995 see claim 1; figures 1,16 ---	1-5

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

24 January 1996

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/IT 95/00160

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO,A,95 06294 (NORRIS JEFFREY A) 2 March 1995 see claim 1; figure 1 ---	1-5
A	WO,A,95 04333 (FRAU PAOLA ;FACCHIN DANIELA (IT)) 9 February 1995 see claim 1; figure 1 -----	1-5

INTERNATIONAL SEARCH REPORT

Information on patent family members

Int. Application No

PCT/IT 95/00160

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO-A-9013086	01-11-90	AU-B- 5557090	16-11-90
		CA-A- 2014797	20-10-90
		CN-A- 1047949	19-12-90
		US-A- 5355480	11-10-94
EP-A-0649121	19-04-95	JP-A- 7175868	14-07-95
WO-A-9506294	02-03-95	AU-B- 7676194	21-03-95
WO-A-9504333	09-02-95	AU-B- 7610494	28-02-95